

REMARKS/ARGUMENTS

In the Office Action mailed May 11, 2009, claims 1-23 were rejected. In response, Applicants hereby request reconsideration of the application in view of the below-provided remarks. No claims are amended, added, or canceled.

Claim Rejections under 35 U.S.C. 103

Claims 1-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson (U.S. Pat. No. 6,892,253, hereinafter Robertson) in view of Myers (U.S. Pat. Pub. No. 2002/0146023, hereinafter Myers) further in view of Bender et al. (U.S. Pat. No. 5,664,223, hereinafter Bender). However, Applicants respectfully submit that these claims are patentable over Robertson, Myers, and Bender for the reasons provided below.

Independent Claim 1

Applicants submit that claim 1 is patentable over the combination of Robertson, Myers, and Bender because the combination of cited references does not teach all of the limitations of the claim. Claim 1 recites:

Device for writing data elements from a coprocessor into a FIFO memory, in a multiprocessing environment comprising at least one coprocessor, a FIFO memory and a controller, said device comprising:

a first counter for counting the available room in said FIFO memory;

a second counter for counting the number of data elements written into said FIFO memory;

control means coupled to the first and second counters, wherein the control means is configured for checking said first counter for available room in said FIFO memory, for checking said second counter whether a predetermined number N of data elements have been written into said FIFO memory, for decrementing the count of said first counter and for incrementing the count of said second counter after a data element has been written into said FIFO memory; and

output means for outputting data elements to said FIFO memory, wherein the output means comprises a first connection to the control means, a second connection to the FIFO memory, and a third connection to the controller, wherein the control means connects between the counters

and the output means, and the output means connects between the control means and the controller;

wherein said control means is adapted to issue a first message when the count of said second counter has reached said predetermined number N by incrementing of the count of said second counter after a data element has been written into said FIFO memory;

wherein said control means is adapted to issue a first call for available room in said FIFO memory to said controller; and

wherein said output means is adapted to forward said first message and said first call to said controller.

(Emphasis added.)

In contrast, the combination of Robertson, Bender, and Meyers does not teach all of the limitations of the claim because the combination of cited references does not teach output means for outputting data elements to said first-in-first-out (FIFO) memory, wherein the output means comprises a first connection to the control means, a second connection to the FIFO memory, and a third connection to the controller, wherein the control means connects between the counters and the output means, and the output means connects between the control means and the controller. For reference, the Office Action acknowledges that Robertson does not teach the indicated language of the claim. Also, the Office Action only relies on Bender as teaching a co-processor. Hence, the Office Action relies solely on Meyers as purportedly teaching the indicated limitation. In particular, the Office Action states:

Robertson does not explicitly disclose the claimed control means, output means, controller, FIFO and counter arrangement or interconnection although the claimed functionality of these elements is understood to be present in Robertson, just not in the particular order that applicant has claimed so that the claims do no extent beyond the scope of what one of ordinary skill would understand to be an obvious modification to Robertson.

In the same field of endeavor, Myers teaches a transport stream multiplexor utilizing smart FIFO meters wherein a broadest reasonable interpretation of applicant claimed functional element arrangement is disclosed (Myers Fig. 1, 3, 9, 11).

Therefore Robertson in view of Myers disclose wherein the output means for outputting data elements to said FIFO memory, wherein the output means comprises a first connection to the control means, a second connection to the FIFO memory, and a third connection to the controller, wherein the control means connects between the counters and the output

means, and the output means connects between the control means and the controller. [Myers Fig. 3, 9, 11].
Office Action, 5/11/09, pages 4 and 5 (emphasis added).

However, the teachings of Myers do not teach the indicated limitations of the claim. It should be noted that the Office Action does not point to any specific element of Meyers as teaching the indicated limitations of the claim, but instead cites only general figures of Meyers (Figs. 1, 3, 9, and 11). Myers is generally directed to multiplexors for broadcasting data. Myers, page 1, paragraph 3. In particular, it appears that the Office Action points to the actual, maximum, and/or minimum count blocks 204, 228, and 230 in the smart FIFO meter 200 as teaching the first and second counters; the flow control 14 as teaching the control means; the data servers 6 and 8 as teaching the output means; the FIFO buffers 20 and 38 as teaching the FIFO memory; and the arbitration logic 22 as teaching the controller. Myers, pages 1 and 2, paragraphs 10-12; pages 6 and 7, paragraphs 65-67. The data servers 6 and 8 each have only two connections. Myers, pages 1 and 2, paragraphs 10-12; Fig. 1. More specifically, the data servers 6 and 8 each have an input to a flow control (flow controls 14 and 32, respectively) and an output to an input router (input routers 16 and 34, respectively). *Id.*

Although Myers describes a data server (purported output means) as having a connection to a flow control (purported control means) and a connection to an input router, Myers does not describe a data server as having a second connection to a FIFO buffer (purported FIFO memory) or a third connection to the arbitration logic (purported controller). More specifically, Myers describes each data server as having only two connections, not three connections. Thus, even though each data server describes a connection to a flow control, each data server lacks a connection to a FIFO buffer as well as a connection to the arbitration logic.

Since each data server has only two connections, the two connections to a flow control and an input router cannot be construed as three connections to a control means, a FIFO memory, and a controller. Therefore, Myers does not teach output means for outputting data elements to said FIFO memory, wherein the output means comprises a first connection to the control means, a second connection to the FIFO memory, and a third connection to the controller, wherein the control means connects between the

counters and the output means, and the output means connects between the control means and the controller.

For the reasons presented above, the combination of Robertson, Myers, and Bender does not teach all of the limitations of the claim because Myers does not teach output means for outputting data elements to said FIFO memory, wherein the output means comprises a first connection to the control means, a second connection to the FIFO memory, and a third connection to the controller, wherein the control means connects between the counters and the output means, and the output means connects between the control means and the controller, as recited in the claim. Accordingly, Applicants respectfully assert claim 1 is patentable over the proposed combination of Robertson, Myers, and Bender.

Dependent Claims

Claims 2-6, 8-11, 13-17, and 19-23 depend from and incorporate all of the limitations of the corresponding independent claims 1, 7, 12, and 18. Applicants respectfully assert claims 2-6, 8-11, 13-17, and 19-23 are allowable based on allowable base claims. Additionally, each of claims 2-6, 8-11, 13-17, and 19-23 may be allowable for further reasons.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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